

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT



8531 OPA

15

I. HEADING

Date: 01/31/2002
Subject: Naples Truck Stop Removal Action, Vernal, UT
From: H. Hays Griswold, OSC Phone: (303) 312-6809
To: Director, ERD
POLREP No.: POLREP 71

II. BACKGROUND

Site No.: 43P808L008
Case No.: U940169
FPN No.: 114009
D.O. No.: NA
Response Agency: EPA Region VIII
Address: 999 18th Street, Suite 500
Denver, CO 80202
Response Authority: CWA, OPA (1990)
Party Conducting Action: EPA (PRFA w/USACE)
ERNS No.: U940169
NPL Status: NA
State Notification: State requested EPA action
Action Memorandum Status: NA
Start Date: February 22, 1994
Demobilization Date: NA
Completion Date: To be determined

III. SITE INFORMATION

A. Incident Category

The incident occurred at an active facility - a Service Station/Truck Stop/Petroleum Bulk Distributor.

B. Site Description

1. Site Description

No change from previous POLREPs.

2. Description of Threat

No change.

C. Evaluation of Site Results

Active treatment of hydrocarbon-impacted groundwater was terminated in October 1998 and replaced by a long-term passive phytoremediation system consisting of approximately 300 Sioux-land poplar trees. These were planted downgradient and cross-gradient of the plume after the October 1998 sampling event. Groundwater sampling from 14 of the 16 existing monitoring wells was resumed in May 1999, following a six-month pause, and occurred approximately every six months through October 2000. Because groundwater contamination was still evident at the site, a reduced monitoring program (five key monitoring wells) was planned for 2001. In addition, it was noted during the August and October 2000 sampling events that a substantial number of the Sioux-land poplar trees along 1625 East had died or were severely stressed. The initial sampling event under the reduced monitoring program occurred on 12 June 2001. The replacement of fifty Sioux-land poplar trees along 1625 East occurred on 18 June 2001. Both of these events were described in POLREP 70 (15 August 2001). This report summarizes the results of the 13 November 2001 sampling event, the second under the reduced monitoring program.

Groundwater Sampling

Five wells were scheduled for sampling (VMP-2 [upgradient], MW-1, MW-8, MW-10 and MW-14 [downgradient]) and all were sampled on 13 November 2001. The groundwater samples collected from MW-1, MW-8, MW-10 and VMP-2 were analyzed for gasoline by U.S. Environmental Protection Agency (EPA) Method SW8015B and for benzene, toluene, ethylbenzene, xylenes (BTEX), methyl *tert*-butyl ether (MTBE) and naphthalene by EPA Method SW8260B. Groundwater samples collected from MW-14 were analyzed for gasoline by EPA Method SW8015B and for BTEX/MTBE by EPA Method SW8021B. A data quality assessment and a data summary table [Table A-4] are provided in Appendix A. Analytical results for petroleum hydrocarbons as gasoline are shown in Table 1 and on Figure 1; analytical results for MTBE are shown in Table 2 and on Figure 2.

Hydrocarbon contamination was detected in all five of the wells sampled on 13 November 2001 (MW-1, MW-8, MW-10, MW-14 and VMP-2). The maximum concentration of petroleum hydrocarbons as gasoline was 10,000 micrograms per liter ($\mu\text{g/L}$) in monitoring well MW-10. Compared to June 2001 sampling results, reported gasoline concentrations decreased at MW-8 and VMP-2, remained the same at MW-1, and increased at MW-10 and MW-14. BTEX compounds were detected above trace levels in MW-8, MW-10 and VMP-2. Reported BTEX concentrations in MW-10 (benzene at 2,400 $\mu\text{g/L}$; toluene at 74 $\mu\text{g/L}$; ethylbenzene at 1,100 $\mu\text{g/L}$; total xylenes at 1,419 $\mu\text{g/L}$) were much higher than in MW-8 (benzene at 1.2 $\mu\text{g/L}$ and ethylbenzene at 1.8 $\mu\text{g/L}$) or VMP-2 (benzene at 4 $\mu\text{g/L}$). Naphthalene was reported at 60 $\mu\text{g/L}$ in MW-10 but did not exceed reporting limits in any of the other wells sampled.

Table 1
Summary of Analytical results for Gasoline

Well No.	October 1998	May 1999	August 1999	November 1999	April 2000	August 2000	October 2000	June 2001	November 2001
MW-1	ND	ND	ND	30 (J)	92 (J)	180	170	52 (J)	52 J (T)
MW-2	390	2,000	2,000	1,600	320	250	530	NS	NS
MW-3	ND	ND	ND	ND	ND	22 (J)	14 (J)	NS	NS
MW-4	ND	780	640	630	640	650	620	NS	NS
MW-6	690	ND	30 (J)	ND	ND	ND	ND	NS	NS
MW-8	2,200	6,200	3,300	1,300	560	5,700	590	410 (J)	320
MW-9	110	530	230	110	180	290	130	NS	NS
MW-10	25,000	13,000	23,000	14,000	18,000	11,000	11,000	9,000	10,000
MW-14	33	ND	ND	ND	ND	ND	ND	ND (UJ)	10 J (T)
MW-15	27	ND	ND	ND	ND	ND	ND	NS	NS
VMP-1	ND	ND	ND	ND	ND	ND	23	NS	NS
VMP-2	1,200	5,600	3,100	3,100	5,300	1,900	1,200	1,400	820
NGMW-01	ND	ND	ND	ND	ND	ND	17 (J)	NS	NS
NGMW-06	ND	ND	ND	ND	NS	NS	NS	NS	NS

NotesAll results are in units of $\mu\text{g/L}$ The detection limit is nominally 10 $\mu\text{g/L}$

J estimated value

ND not detected

NS not sampled

T concentration above method detection limit but below practical quantitation limit

UJ analyte reported as not detected at an estimated detection limit

MTBE contamination was detected in only two of the wells sampled on 13 November 2001 (MW-1 and MW-8). The maximum reported concentration of MTBE was 110 $\mu\text{g/L}$ at MW-8. Compared to June 2001 sampling results, reported MTBE concentrations decreased at MW-1, MW-8 and VMP-2 and remained the same (ND) in MW-10 and MW-14. As noted in previous reports, it is likely that MTBE is present at MW-10 but is not reported due to interference from the elevated gasoline hydrocarbons in the groundwater. The behavior of MTBE in VMP-2 is highly variable. As seen in Table 2, MTBE was reported at 720 $\mu\text{g/L}$ in April 2000 (first time MTBE was analyzed for), was not detected above reporting limits (ND) in August and October 2000, was reported at 750 $\mu\text{g/L}$ in June 2001 and was again ND in November 2001. It is possible that the relatively high levels of gasoline hydrocarbons in VMP-2 are also interfering with the MTBE analysis. Also, given that VMP-2 is near the suspected source area and there is a pattern of high concentrations in spring/early summer samples (April 2000 and June 2001) and low concentrations in late summer/fall samples (August and October 2000 and November 2001), it is logical to suspect that the variation is due to seasonal changes in groundwater levels and residual contamination in the vadose zone. This is, however, not the case. The depth to water in VMP-2 has shown no seasonal variation but rather a small but consistent increase during the period from April 2000 to November 2001 (April 2000 – 6.66 feet below top of casing [btoc]; August 2000 – 6.74 feet btoc; October 2000 – 7.00 feet btoc; June 2001 – 7.30 feet btoc; November 2001 –

8.27 feet btoc). The reason for the highly variable MTBE concentrations in VMP-2 remains uncertain.

Table 2
Summary of Analytical Results for MTBE

Well No.	April 2000	August 2000	October 2000	June 2001	November 2001
MW-1	100 (J)	88	140	170	72
MW-2	160 (J)	470	91	NS	NS
MW-3	ND	3.5	1.3 (J)	NS	NS
MW-4	ND	ND	ND	NS	NS
MW-6	ND	73	1.3 (J)	NS	NS
MW-8	210	160	120	330	110
MW-9	ND	ND	ND	NS	NS
MW-10	ND	ND	ND	ND	ND
MW-14	ND	ND	1.4 (J)	ND	ND
MW-15	ND	ND	0.4 (J)	NS	NS
VMP-1	2.9	6	18	NS	NS
VMP-2	720	ND	ND	750	ND
NGMW-01	ND	0.6	0.7	NS	NS
MGMW-06	NS	NS	NS	NS	NS

Notes

All results are in units of µg/L
The detection limit is nominally 0.2 µg/L

J estimated value

ND not detected

NS not sampled

In summary, results of the November 2001 sampling event suggest relatively stable concentrations of petroleum hydrocarbons as gasoline and possibly decreasing concentrations of MTBE in site groundwater during 2001.

Status of Tree Replacement

As noted previously, 50 dead Sioux-land poplar trees were removed and a new alignment of 50 Sioux-land poplar trees was installed along 1625 East on 18 June 2001. The trees were purchased and installed by Landscapes and Vinyl Construction of Vernal, Utah (Mr. Sonny Kilgrow). The dead trees were removed from the alignment furthest from the street while the replacement trees were planted in an alignment closer to the street. The location of the alignment was changed to minimize the potential for future damage to the trees by weed control spraying within the Questar Pipeline Company equipment yard which parallels 1625 East. The existing drip irrigation system was modified to water the new alignment of trees and the watering system was activated and maintained through the summer and fall of 2001. The irrigation system was turned off in late November 2001.

As of the 13 November sampling event, all of the remaining mature trees and all but one of the new trees along 1625 East were healthy, although most had lost their leaves for the winter. Mr. Kilgro indicated that he would replace the one young tree that had died in the spring of 2002. He attributed the loss of this tree to weed control spraying

along 1625 East; several other of the new trees had been stressed but were revived by over watering for a short period of time. Mr. Kilgrow also indicated that all of the new trees would require at least one more season of irrigation to have a reasonable chance of survival. The drip irrigation system remains intact but the water service would need to be reactivated by late spring of 2002 (Ashley Valley Water & Sewer Improvement District). In addition, the system would need to be checked for leaks and proper operation (timers adjusted, etc.) at the time it is turned back on. The cost of water for one season for that portion of the irrigation system along 1625 East should be less than \$200 (water bill for 2001 irrigation season was on the order of \$150). The cost for checking and tuning the system should be minimal if no major repairs are needed.

Contact information for Landscapes and Vinyl Construction and the Ashley Valley Water & Sewer Improvement District are as follows:

Landscapes and Vinyl Construction (Mr. Sonny Kilgrow)
277 East 100 North
Vernal, Utah 84078
(435) 789-2718 (phone)
(435) 789-2722 (fax)

Ashley Valley Water & Sewer Improvement District (no contact name)
1344 West Highway 40
PO Box 967
Vernal, Utah 84078
(435) 789-9400 (phone)
Service address for water is listed as "1581 S 1625 E"
Service account number for this past year was 17.0837.1 (Jacobs Engineering)

IV. RESPONSE INFORMATION

A. Situation

Date of Notification:	2/08/94
Date of Discovery:	11/01/93
Date Action Started:	2/15/94
Material Involved:	Unleaded gasoline
Quantity Discharged:	7000 + gallons
Substantial Threat:	Yes
Resource Affected:	Unnamed tributary to Ashley Creek, tributary to Green River
Source Identification:	Naples Truck Stop

1. Removal Actions to Date

Active groundwater treatment (vacuum-enhanced pumping/biotreatment, thermal oxidizer unit, granular activated carbon filtration unit) was initiated in March 1994 and terminated in October 1998. A passive phytoremediation system was installed in November 1998. This system consists of three triple-rows of Sioux-land poplar trees aligned approximately perpendicular to the plume as shown on Figures 1 and 2.

2. Enforcement

No change from previous POLREPs.

B. Planned Removal Actions

Continue passive phytoremediation.

C. Next Steps

Continue passive phytoremediation.

D. Key Issues

Major findings of the monitoring program initiated in October 1998, concurrent with installation of the passive phytoremediation system, are as follows:

1. Petroleum hydrocarbons as gasoline and BTEX compounds show a relatively consistent pattern of slowly decreasing concentration in MW-10 (the hot spot); concentrations may be decreasing in other monitoring wells but there is considerable variation.
2. MTBE, which was first analyzed for in April 2000 (total of five sampling events), shows a pattern of high variability. Although the November 2001 results for MW-1 and MW-8 were lower than any of the previous four events, there is no clear decreasing trend because the June 2001 results for these two wells were the highest recorded to date.
3. Low levels of petroleum hydrocarbons as gasoline and MTBE are found downgradient of 1625 East (MW-1), but concentrations appear to be stable, if not decreasing, and there is no indication of further downgradient migration (no increasing contaminant concentrations at MW-14).
4. Monitoring results to date do not appear to demonstrate the effectiveness of the passive phytoremediation system. Slowly decreasing concentrations at MW-10 may be due to the phytoremediation system, but could also be the result of natural attenuation (dilution/dispersion or biodegradation).

E. Recommendations

1. Reactivate the irrigation system for the alignment of Sioux-land poplar trees along 1625 East during the spring of 2002 and maintain irrigation through early fall of 2002.

H. Hays Griswold, OSC

cc: Rich Haavisto, USACE-Sacramento
Dick Bateman, Jacobs
Amir Matin, Jacobs
Renee Zollinger, Kleinfelder

APPENDIX A

Data Quality Assessment

Introduction

This data quality assessment (DQA) for the Naples Truck Stop fuel spill project is applicable to the analytical results for the following groundwater samples (listed in Table A-1) collected on November 13, 2001.

TABLE A-1 - SAMPLE LOCATION SUMMARY		
<i>Sample Location Name</i>	<i>Sample Location ID</i>	<i>Number of Locations</i>
Groundwater Monitoring Wells	MW-1, -8, -10, -14 and VMP-2	Five

All method-defined QA/QC requirements specified in SW-846 Test Methods for Evaluating Solid Waste Physical (Chemical Methods, US EPA, January 1995, 3rd edition, Updates I, II, IIA, and IIB) were followed. EMAX Laboratories, Torrance, CA, a facility approved by the state of Utah for UST-related analytical work, analyzed all the groundwater samples.

The data are of acceptable quality and are considered usable to support the U.S. Army Corps of Engineers (USACE), Naples, Utah Truck Stop Project. The precision, accuracy, and completeness objectives for this sampling event were met. Tables A-2 and A-3 show the sampling and analytical completeness. Completeness is measured in two ways: 1) sampling completeness (samples collected vs. planned), and 2) analytical completeness (percent of acceptable [non-rejected] analytical results vs. the total number of results reported).

Data Evaluation Process

All data were verified by a Jacobs project chemist in accordance with the general principles defined in the Jacobs Data Verification SOP. The following quality control (QC) parameters were evaluated:

- Sample preservation
- Holding times
- Laboratory method blanks
- Trip blanks
- Laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries and precision
- Matrix spike and matrix spike duplicate (MS/MSD) recoveries and precision
- Field duplicate precision
- Surrogate recoveries
- Sample dilutions
- Initial and continuing calibration (as identified in the laboratory narrative)

Analytical results that required the addition of a qualifier flag based on the evaluation process are discussed below. The qualifier flags applied to sample results for this data set are summarized below:

Qualifier Flags

J the analyte concentration is estimated due to qualification or as a trace concentration detected above method detection limit (MDL) but below its practical quantitation limit (PQL)

Reason Codes

T trace concentration detected

Sample Preservation

Samples were collected in pre-preserved 40 mL VOA vials (HCl, pH <2) with the vials appropriately labeled. The temperature of the cooler upon receipt by the laboratory was 2.5°C.

Holding Time

All samples were analyzed within the 14-day holding time.

Laboratory Method Blanks

Laboratory method blanks were analyzed in each analytical batch for each analytical method. There were no contaminants detected above the MDL in the method blanks.

Trip Blanks

One trip blank was collected to confirm that volatile organic compounds (VOCs) were not introduced to the environmental samples during shipment, handling, or storage on site and at the laboratory. There were no contaminants detected above the MDL in the trip blank.

LCS/LCSD Recoveries and Precision

LCS/LCSDs were analyzed in each analytical batch for each analytical method. All LCS/LCSD recoveries and relative percent difference (RPD) values were within acceptance limits.

MS/MSD Recoveries and Precision

Due to the amount of dilutions on the samples, the laboratory was not able to perform the designated MS/MSD analysis. LCSDs were analyzed in all analytical batches to measure precision.

Field Duplicate Precision

A field duplicate sample was collected at MW-8 and analyzed by SW8260B and SW8015B. All RPD values were within acceptance limits for field duplicate precision.

Surrogate Recoveries

All surrogate recoveries were within the acceptance limits listed in the laboratory Statement of Work (SOW).

Sample Dilutions

Sample dilutions were performed in order to quantitate analyte concentrations within instrument linear calibration range. All diluted samples were appropriately diluted to accurately quantitate sample concentration.

Calibration

Instruments are calibrated in order to ensure that analytes are correctly identified and quantitated. All instrument calibration criteria were met.

Completeness

Overall sampling and analytical completeness objectives (90 percent) were met for all analytical methods (see Tables A-2 and A-3).

TABLE A-2* - SAMPLING COMPLETENESS	
Sample Event	Phytoremediation Monitoring, Naples Truck Stop
Laboratory	EMAX Laboratories
Matrix	Groundwater
Analytical Methods	SW8260B, SW8021, and SW8015M
Sampling Date	November 13, 2001
Total Number of Samples Planned	5
Total Number of Samples Collected	5
Sampling Completeness (%)	100

TABLE A-3* - ANALYTICAL COMPLETENESS	
Sample Event	Phytoremediation Monitoring, Naples Truck Stop
Laboratory	EMAX Laboratories
Analytical Methods	SW8260B, SW8021B, and SW8015M
Sampling Date	November 13, 2001
Total Number of Samples Analyzed	5
Total Number of Results Reported	34
Total Number of Results Accepted	34
Total Number of Results Rejected	0
Analytical Completeness (%)	100

* Tables do not include trip blanks and field duplicates.

Summary

The data are of acceptable quality and are considered usable to support the USACE, Naples Utah Truck Stop Project. All precision, accuracy and completeness objectives for this sampling event were met.

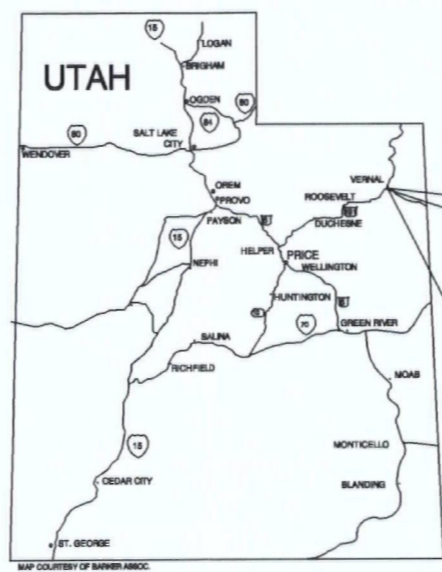
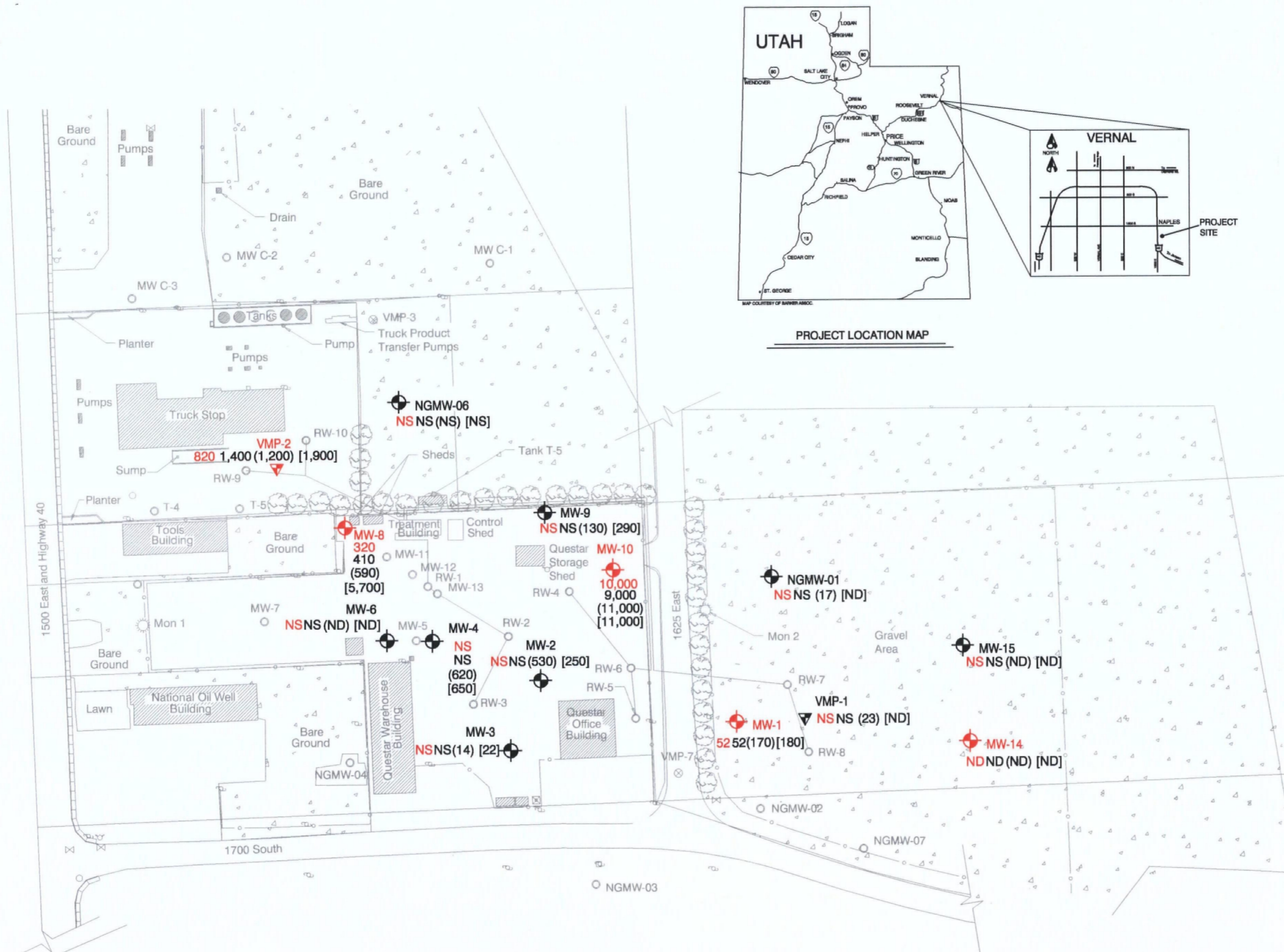
A summary of all analytical results is presented in Table A-4.

TABLE A-4
NAPLES TRUCK STOP
13 NOVEMBER 2001 ANALYTICAL SUMMARY
LAB #: 01K132

Location	Sample Date Units	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	Naphthalene µg/L	Gasoline µg/L
MW-1	13-November-01	ND @ 0.18	ND @ 0.12	ND @ 0.11	ND @ 0.24	72	ND @ 0.27	52 J(T)
MW-2					NOT COLLECTED			
MW-3					NOT COLLECTED			
MW-4					NOT COLLECTED			
MW-5					NOT COLLECTED			
MW-6					NOT COLLECTED			
MW-7					NOT COLLECTED			
MW-8	13-November-01	1.2	ND @ 0.12	1.8	ND @ 0.24	110	ND @ 0.27	320
MW-8-FD	13-November-01	0.98 J(T)	0.22 J(T)	1.8	ND @ 0.24	110	ND @ 0.27	430
MW-9					NOT COLLECTED			
MW-10	13-November-01	2,400	74	1,100	1,419	ND @ 1.3	60	10,000
MW-12					NOT COLLECTED			
MW-14	13-November-01	0.29 J(T)	0.43 J(T)	0.22 J(T)	0.53 J(T)	ND @ 0.54	NA	10 J(T)
MW-15					NOT COLLECTED			
NGMW-01					NOT COLLECTED			
NGMW-06					NOT COLLECTED			
VMP-1					NOT COLLECTED			
VMP-2	13-November-01	4	0.47 J(T)	0.78 J(T)	0.72 J(T)	ND @ 0.13	ND @ 0.27	820
TB	13-November-01	ND @ 0.18	ND @ 0.12	ND @ 0.11	ND @ 0.24	ND @ 0.13	ND @ 0.27	ND @ 6

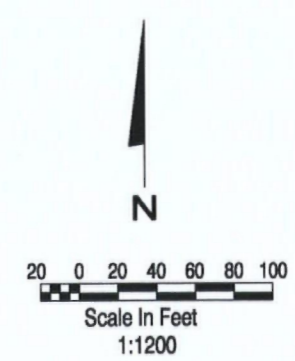
Legend:

µg/L	micrograms per liter	NA	not analyzed for
FD	field duplicate	ND	not detected at method detection limit
J	estimated concentration	T	concentration above method detection limit but below practical quantitation limit
MTBE	methyl <i>tert</i> -butyl ether	TB	trip blank

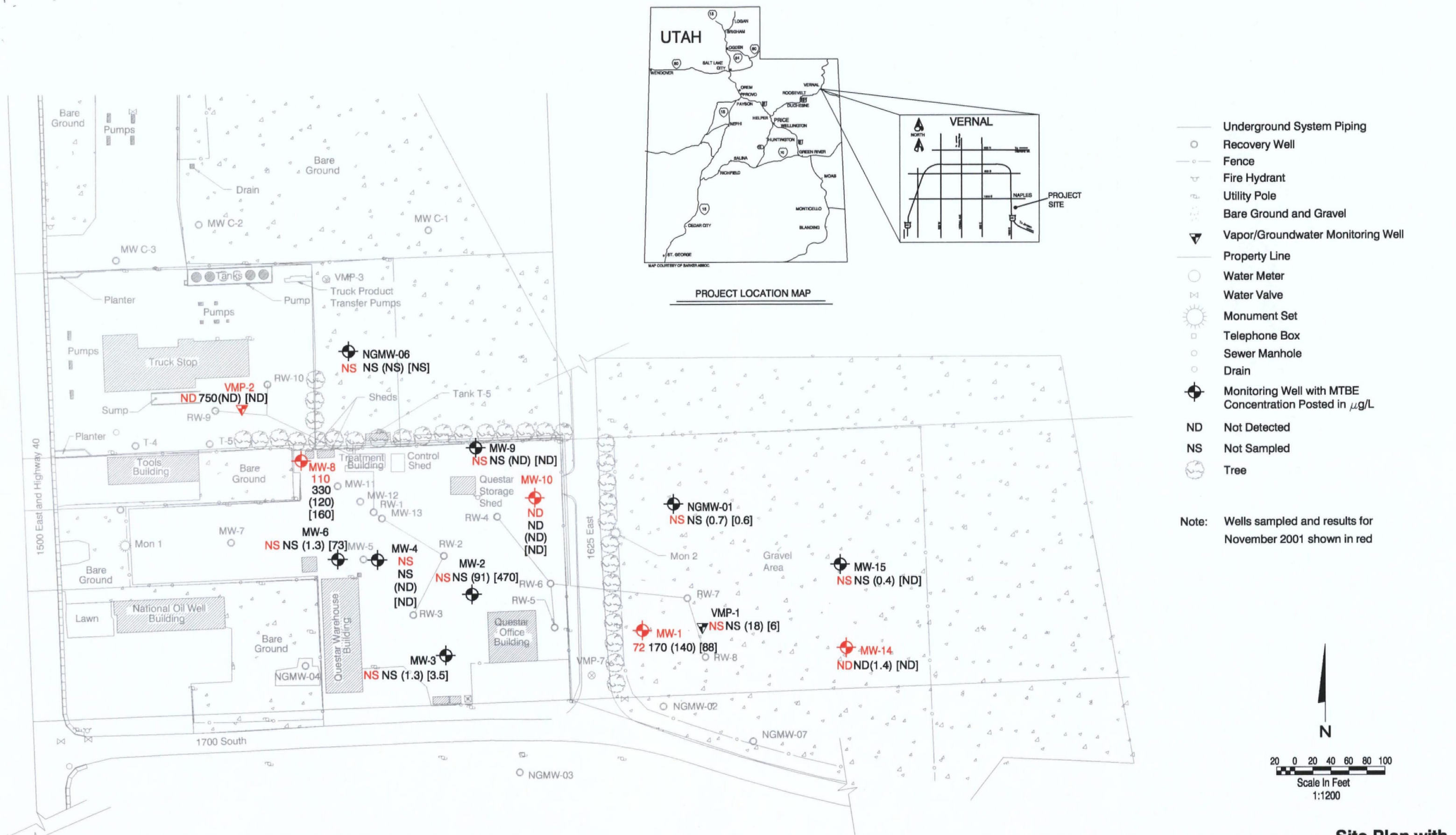


- Underground System Piping
- Recovery Well
- Fence
- Fire Hydrant
- Utility Pole
- Bare Ground and Gravel
- Vapor/Groundwater Monitoring Well
- Property Line
- Water Meter
- Water Valve
- Monument Set
- Telephone Box
- Sewer Manhole
- Drain
- Monitoring Well with Gasoline Concentration Posted in μg/L
- ND Not Detected
- NS Not Sampled
- Tree

Note: Wells sampled and results for November 2001 shown in red



**Site Plan with
November 2001 June 2001 (October 2000) [August 2000]
Monitoring Well Data - Gasoline**
Naples Truck Stop
Vernal, Utah
FIGURE 1



REGION 8 START2 CONTRACT

CONTRACT NO. 68-W-00-118

No.:

Priority:

☒ High
☐ Medium
☐ Low

TECHNICAL DIRECTION DOCUMENTATION (TDD)

URS OPERATING SERVICES

Amendment: _____

Key EPA Contact Name: Hays Griswold

Estimate of Total Hours: 80

EPA Site Name: Naples Truck Stop

CERCLIS ID:

Phone: 303-312-6809

Total Cost: \$6,000

SSID No.: NA City/County/State: Naples

Completion Date: 12/15/03

TDD ACTIVITY CATEGORIES

CERCLA ASSESSMENT

- ☐ SAPA
- ☐ Combined Assessment
- ☐ Screening Preliminary Assessment
- ☐ Site Inspections
- ☐ Expanded Site Inspections
- ☐ HRS/NPL Packages

BROWNFIELDS

- ☐ Targeted Assessment
- ☐ OTHER: _____

RESPONSE ACTIVITIES

- ☒ Emergency Response
- ☒ Removal Support (PRP)
- ☒ CERCLA
- ☒ OPA
- ☐ Oil Soil Response
- ☐ Minor Containment
- ☐ Oil Soil Response
- ☐ Information Management
- ☐ RRC Support
- ☐ Administrative Records
- ☐ Removal Preliminary Assessment

PREPAREDNESS & PREVENTION

- ☐ CEPP
- ☐ Contingency Plans
- ☐ Chemical Safety Audits
- ☐ SPCC Inspections or Reviews
- ☐ Oil Program Initiatives

TECHNICAL SUPPORT ACTIVITIES

- ☐ Training
- ☐ Enforcement
- ☐ Analytical Services
- ☐ Special Project
- ☐ General Technical Support

General Task Description:

Assist the OSC with evaluating the completion of the Naples Truck Stop OPA Remedial Action.

Overtime Approved:

☒ Yes
☐ No

Specific Elements:

1. Restore irrigation of Trees for this season and possibly next season - if needed.
2. Continue sampling of groundwater wells and analysis of samples to monitor effectiveness of cleanup - same schedule (Copy of Polrep provided for information)

Authorizing PO/CO

Signature

Intermediate Deadlines:

1. 5/26/02

Date:

Received by: ☐ Accepted ☐ Accepted with exception (Attached) ☐ Rejected

Date:

START2 L. Signature

FUNDING SOURCE

CERCLA

- ☐ Removal
- ☐ Site Assessment
- ☐ P & F
- ☐ Brownfields

OPA

- ☒ P & F
- ☒ Fund Access

CEPP

- ☐ P & F

OTHERS

Technical Completion:

12/15/03

JACOBS ENGINEERING

31 January 2002

Transmittal

Tr# 02_009

TO: Mr. Rich Haavisto
Technical Manager
U.S. Corps of Engineers
Environmental Engineering Branch
1325 J Street, 12th floor
Sacramento, CA. 95814-2922

FROM: Dick Bateman *RLB*
Project Manager
Jacobs Engineering Group
2525 Natomas Park Drive, Suite 370
Sacramento, CA 95833

ON: Contract No. DACW05-98-P-0763
JEG Project No. 27-T031-00 Vernal,Utah - Naples Truck Stop

ATTACHED ARE	<u>1</u>	ENCLOSURES	<u>1</u>	COPY OF EACH RELEASED FOR:
CONSTRUCTION	<u> </u>	PURCHASE	<u> </u>	APPROVAL <u> </u>
FABRICATION	<u> </u>	DESIGN	<u> </u>	YOUR FILE <u> X </u>

ENCL NO.	DRAWING OR SPEC NUMBER	REV.	DESCRIPTION	DATE
1.		0	POLREP #71	31 January 2002

REMARKS:

Reactivation of the drip irrigation system along 1625 East is recommended during the Spring/Summer/Fall of 2002 to ensure survival of the 50 new Sioux-land poplar trees in this alignment (see discussion under "Status of Tree Replacement").

Distribution:

EPA
H. Griswold

Jacobs
D. Bateman
A. Matin
Project Files
Contract Files*

Kleinfelder
R. Zollinger (S.L.C.)

* Transmittal Only